

10/25/2

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: T. FRANK WANG

ART UNIT:

1765

SERIAL NO.:

09/609,387

EXAMINER: PEREZ, R.

FILING DATE: JULY 3, 2000

FOR:

METHOD OF UNIFORMLY ETCHING REFRACTORY METALS,

REFRACTORY METAL ALLOYS AND REFRACTORY METAL

**SILICIDES** 

**AMENDMENT** 

ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231

SIR:

TYUU MALE RUUK

Responsive to the outstanding Office Action issued July 23, 2002 in the above-captioned matter, entry of the following amendments is respectfully requested.

## IN THE CLAIMS

Please amend the claims as follows:

- 1. A method for etching a semiconductor device to form an etched pattern therein, comprising:
- (a) providing a semiconductor device having a plurality of layers, at least one of the layers of the semiconductor device comprising a refractory metal-containing material; and
- (b) etching the semiconductor device under conditions with an etchant composition comprising a first etchant chemistry which comprises a chlorine source free of BCl<sub>3</sub> and a second etchant chemistry which is free of fluorine
- 15. A method of etching a refractory metal-containing layer and an oxide layer, the method comprising:
  - (a) etching the refractory metal-containing layer to an end point using a first etchant